PT530 500Mbps Powerline Access Point

User Guide

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V100R001

User Guide

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Huawei Technologies Co., Ltd. provides customers with comprehensive technical support and service. Please feel free to contact our local office or company headquarters.

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1 Product Description

1.1 Product Overview

- The PT530 500Mbps Powerline Access Point is a data networking device providing data connections for home networks with blazing connection speeds of up to 500 Mbit/s. Adopting Dynamic Neighbor Network Mitigation technology, the PT530 supports stable HD multimedia streaming, online gaming, and Internet surfing. The PT530 uses the existing electrical wiring to connect your HD set top boxes (STBs), PCs, and other devices to your home network and the Internet, eliminating the need to route dedicated network cables. With its support for 802.11n, the PT530 provides network access for mobile phones and tablets at speeds up to 300 Mbit/s.
- A secure powerline data connection can be promptly set up with one press of the push-and-pair button.
- The PT530 adopts green technology that complies with European Code of Conduct (CoC) on Energy Efficiency and the European Union's Energy-related Products (ErP) Tier 2.

1.2 Feature Overview

High-speed powerline communications

After you plug two or more PT530s (also compatible with PT500s) into power outlets and connect one of the PT530s to a wireless router, you will witness faster and instant access connections and greater Wi-Fi coverage with 500 Mbit/s physical data rate. The PT530 supports HomePlug AV and operates between 1.8 MHz to 68 MHz.

High-speed wireless access

Incredibly fast wireless access with superb signal strength and high data rates of up to 300 Mbit/s is all within your reach as the PT530 supports 2.4 GHz WLAN, adopts MIMO technology, and incorporates 2T2R antennas.

Push-and-pair button and WPS button

The PT530 provides two buttons, the push-and-pair button and WPS button, for secure and convenient data network setup.

- By pressing the push-and-pair button, you can set up secure powerline data connections between the PT530 and other powerline devices.
- By pressing the WPS buttons on the PT530 and any WPS-capable device, you can set up an encrypted data connection.

Easy Configuration and Management

The PT530 provides password-protected web-based management pages to protect your personal data.

1.3 Technical Specifications

Interfaces

- 1 x AC power plug (powerline communication interface)
- 2 x 2.4 G built-in antennas (wireless communication interface)
- 2 x RJ45 10/100M Ethernet ports
- 5 x LED indicators: PWR (power status), LAN1 (network connection status), LAN2 (network connection status), PLC (pair status), and WLAN (wireless connection status)
- 4 x buttons: reset button, push-and-pair button, WPS button, and power button

Wireless Functions

- Wireless connection control (enable/disable)
- SSID configuration
- Channels: channels 1 through 13 and the automatic channel
- Bandwidths: 20 MHz, 40 MHz, and auto
- Wi-Fi modes: 802.11b, 802.11g, 802.11n, 802.11b/g, and 802.11b/g/n

- Wi-Fi encryption modes: WEP (64/128 bits), TKIP, AES, WPA-PSK, WPA2-PSK, PA-PSK/WPA2-PSK, and MAC address filtering
- WPS-capable

Networking and Bridging

Bridging for data forwarding between the powerline and Ethernet

Maintenance and Management

Web-based local management and upgrade

Web-based management interface for easy switching between router mode and bridge mode

Power Supply Specifications

- Power supply: 100–240 V AC, 50/60 Hz
- Power consumption: < 6 W

Environmental Specifications

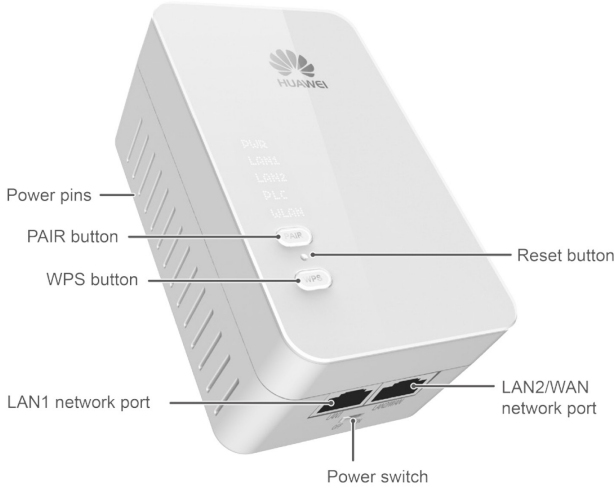
- Operating temperature: 0°C to 40°C (32°F to 104°F)
- Operating humidity: 5% to 95% RH (non-condensing)

Dimensions and Weight

Standard	Dimensions	Weight
American	107 mm x 62 mm x 72 mm (4.21 in. x 2.44 in. x 2.83 in.)	About 196.2 g
European	107 mm x 62 mm x 86 mm (4.21 in. x 2.44 in. x 3.39 in.)	About 199.8 g

2 Hardware Description

2.1 Ports and Buttons

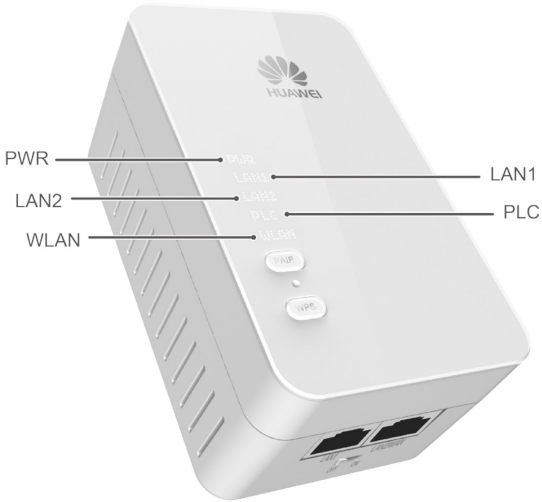


Item	Description
PAIR	Pair/Exit button • Pair: Used to establish connection between two powerline devices. Press and hold this button for about 1 second (from 0.5 second to 4 seconds), and then release it. The **PLC** indicator will start to blink. Within 2 minutes, press the **PAIR** button on the other powerline device. If **PLC** indicators on both two powerline devices turn to steady on from blinking status, it indicates that connection between the PT530 and the PT500 has been established successfully. • Exit the paring: Used to exit the current pairing connection and prepare for a new connection with other powerline device. Press and hold this button for more than 8 seconds until the **PWR** indicator turns off and then release it. The PT530 will exit the pairing connection.

Item	Description
WPS	WPS/WLAN button • WPS: Starts Wi-Fi protected setup (WPS) negotiation. Press and hold PT530's WPS button for about 1 second (from 0.5 second to 3 seconds), and release it. The **WLAN** indicator will start to blink. Within 2 minutes, press the **WPS** button on the wireless terminal such as a Laptop computer. If the **WLAN** indicator on the PT530 turns to steady on from blinking status, it indicates that wireless connection between wireless terminal and the PT530 has been established successfully. • WLAN: Enables or disables the WLAN function. Press and hold this button for more than 3 seconds until the **WLAN** indicator turns to steady on to enablePT530's wireless network function. Or press and hold this button for more than 3 seconds until the **WLAN** indicator turns off to disable the wireless network function.
LAN1	Connects to Ethernet devices, such as computers, set-top boxes (STBs), and switches.
LAN2/WAN	• LAN interface in bridge mode or router mode using powerline uplink: Connects to Ethernet devices, such as computers, set-top boxes (STBs), and switches. • WAN interface in router mode using LAN uplink: Connects to an Ethernet device that provides Internet access, such as a modem or switch.
On/Off	Powers the PT530 on or off.

Item	Description
Reset	Used to restore the PT530 to its default settings. After powering on the PT530, please use a needle to press and hold this button for more than 2 seconds until all the indicators turn off. The PT530 will restore to its default settings. **CAUTION** A reset will result in all custom data and settings being lost. Use with caution.

2.2 Indicators



Indicator	Status	Description
PWR	Steady on	The PT530 is powered on.
	Off	The PT530 is powered off.

Indicator	Status	Description
LAN1/LAN2	Steady on	The LAN port is connected to an Ethernet device (such as a computer) with a network cable.
	Off	The LAN port is not connected to any Ethernet device.
PLC	Steady on	The PT530 is connected to a powerline device.
	Blinking	The PT530 is searching for available networks.
	Off	• The PT530 is not paired with other powerline device. • The PT530 is paired but cannot find the other powerline device.
WLAN	Steady on	WLAN is enabled.
	Blinking	The PT530 is attempting to connect to a wireless client over the WLAN using the WPS function.
	Off	WLAN is disabled.

3 Quick Setup

3.1 Pairing Powerline Devices

This product must be used with other powerline devices. This section uses a PT530 and a PT500 to illustrate the pairing process.

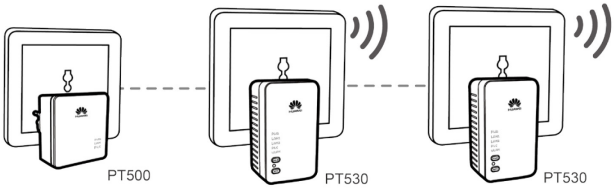
1. Plug the PT530 into a power outlet. When the PT530 is powered on, its **PWR** indicator will turns to steady on.
2. Plug the PT500 into a power outlet nearby the PT530.
3. Press and hold the **PAIR** button on the PT530 for 1 second and then release it. Its PLC indicator will start to blink.
4. Within 2 minutes, press and hold the **PAIR** button on the PT500 for 1 second and then release it.
5. Check the indicators' status on the PT530 and the PT500. If both two **PLC** indicators on the PT530 and the PT500 turn to steady on from blinking status within 10 seconds, the connection between the PT530 and the PT500 has been established successfully.

Leaving an Existing Powerline Network

If you press the **PAIR** button and the **PLC** indicator starts to blink while connection cannot be established, press and hold the **PAIR** button for 8 seconds until the **PWR** indicator turns off, and then the PT530 will exit the current network. Please repeat the pairing steps to restart the pairing process.

Joining an Existing Powerline Network

If you have another PT530 needs to join the existing powerline network created by the PT530 and the PT500, follow the below steps:



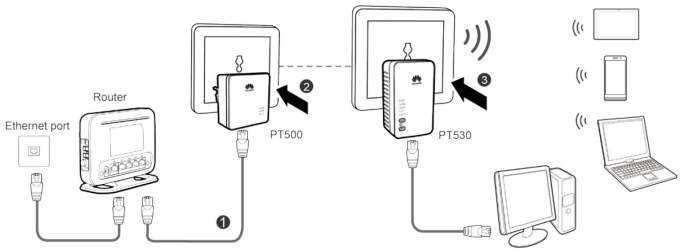
1. Press and hold the **PAIR** button on the newly added PT530 for 1 second, and then release it.
2. Within 2 minutes, press and hold the **PAIR** button on either the PT530 or the PT500 in the existing powerline network, and then release it.
3. Check the indicators' status on the PT530. When the **PLC** indicator on the newly added PT530 turns to steady on from blinking status, it indicates that the PT530 is connected to the network.
4. If you have more PT530s need to join this network, please repeat the above operation.

3.2 Connecting Cables

Before you install the PT530, please first make sure that your PC can successfully access the Internet via the Router. Then connect the powerline devices following the instructions below.

Bridge Mode

The PT530's default working mode is bridge. If you already have a router, you can choose this scenario, and then the PT530 will access the Internet through the router.

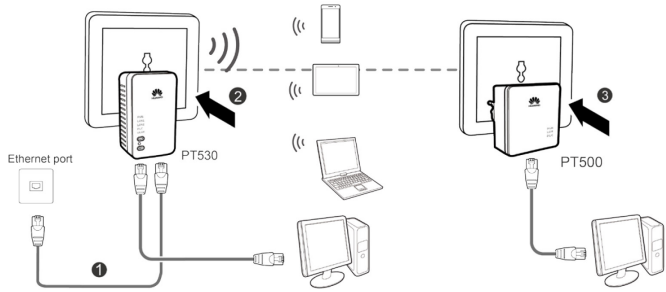


1. Connect one end of a network cable to the PT500. Connect the other end of the same network cable to the router's LAN port.
2. Plug the PT500 into a power outlet.
3. Plug the PT530 into a power outlet.

Please check that the PT530 and the PT500 have been paired.

Router Mode

The PT530 supports router function. You can log in to the web-based configuration utility and set one PT530 to router mode. And the PT530 can be used as a powerline device with wireless router function. If you do not have a router, you can choose this scenario.



1. Connect one end of a network cable to the PT530's LAN2/WAN port. Connect the other end of the same network cable to the Ethernet port on the wall.
2. Plug the PT530 into a power outlet.
3. Plug the PT500 into a power outlet.

Please check that the PT530 and the PT500 have been paired.

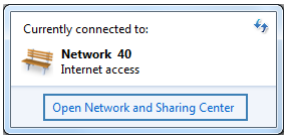
3.3 Setting the Computer

Before logging in to the PT530 web management page, set the IP address of the computer that will be used for the login. The PT530's default IP address is 192.168.33.1, and default subnet mask is 255.255.255.0. These values can be changed according to actual needs. This

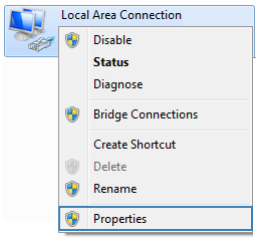
section will take the Windows 7 operating system as an example, to describe how to configure the computer.

Wired Connection

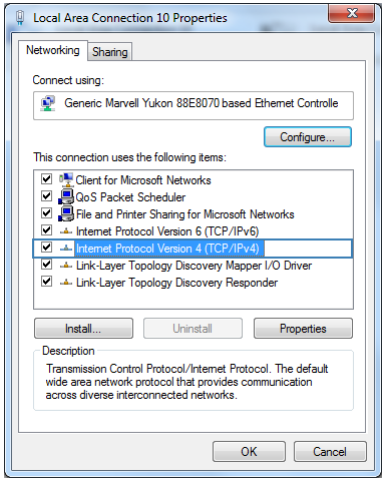
1. Use a network cable to connect the PT530's LAN1 port and the computer's network port.
2. Click in the lower right corner of your desktop, and choose **Open Network and Sharing Center**.



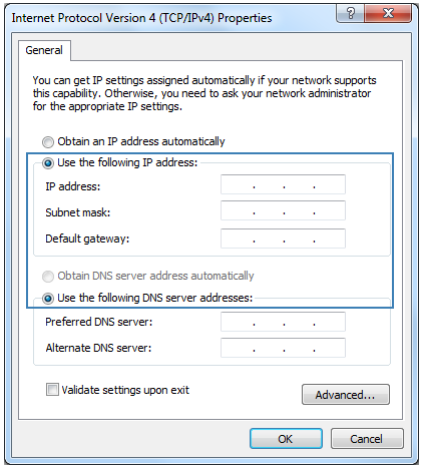
3. Choose **Change adapter settings**. Right-click **Local Area Connection** and choose **Properties**.



4. Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



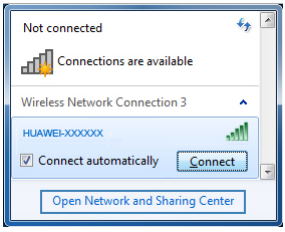
5. Select **Use the following IP address**. Set **IP address** to 192.168.33.100, **Subnet mask** to 255.255.255.0, and **Default gateway** to 192.168.33.1. Click **OK** to return to the previous dialog box and click **OK**.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

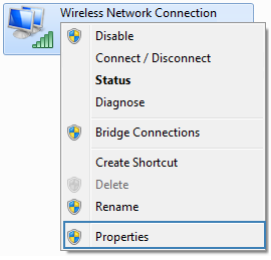
Wireless Connection

Before setting up a wireless connection, record the WLAN name and password of the PT530. The default WLAN name and password are printed on the PT530 cover label.

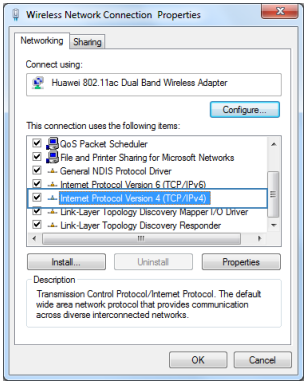
1. Click in the lower right corner of your desktop. Choose **Open Network and Sharing Center**.



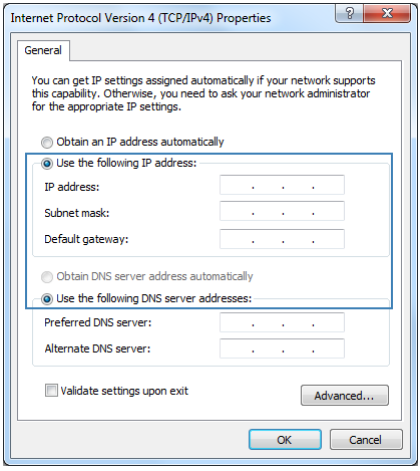
2. Choose **Change adapter settings**. Right-click **Wireless Network Connection** and choose **Properties**.



3. Double-click **Internet Protocol Version 4 (TCP/IPv4)**.

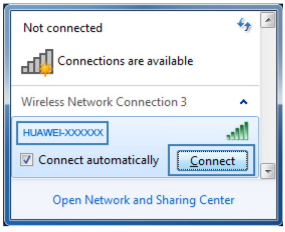


4. Select **Use the following IP address**. Set **IP address** to 192.168.33.100, **Subnet mask** to 255.255.255.0, and **Default gateway** to 192.168.33.1. Click **OK** to return to the previous dialog box and click **OK**.

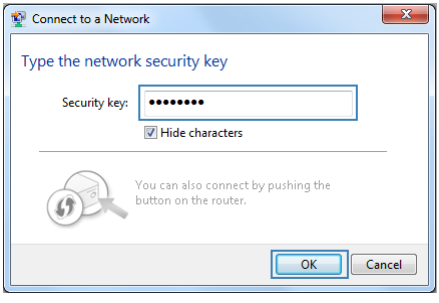

Internet Protocol Version 4 (TCP/IPv4) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

5. Click in the lower right corner of your desktop.

6. From the wireless network list, select the WLAN provided by the PT530. Click **Connect**.



7. In the displayed dialog box, enter the WLAN password and click **OK**.



8. In the wireless network list, check the WLAN connection status. If the status is **Connected**, the computer is wirelessly connected to the PT530.

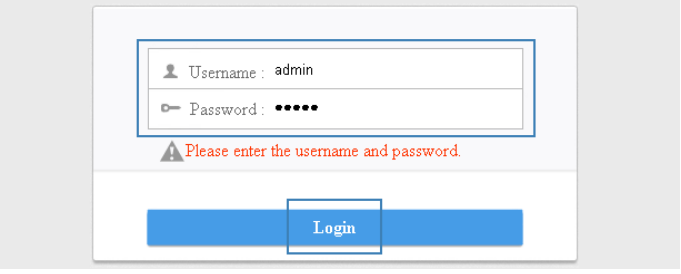
3.4 Setting the PT530

The PT530 provides a Web-based configuration tool. You can log in to the PT530's Web management page to set the Internet access parameters and wireless connection parameters.

Router Mode

1. Open a browser on your computer. In the address box, enter **192.168.33.1**. Press **Enter** to access the web management page.

2. On the login page, enter the login user name (**admin** by default) and password (**admin** by default). Click **Login**.

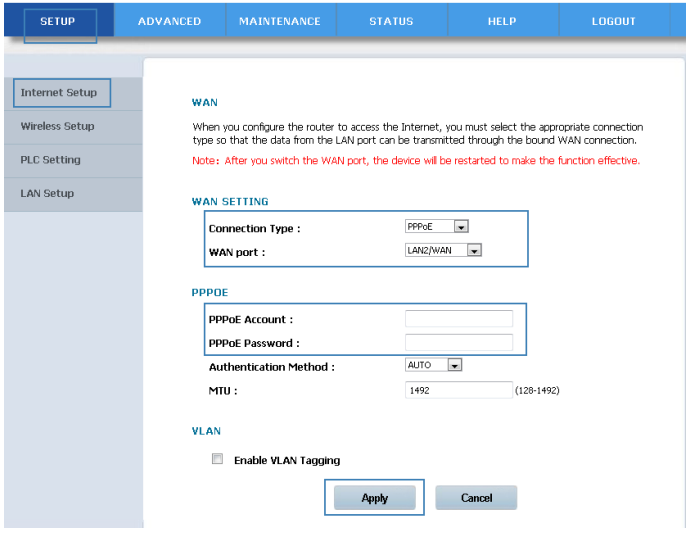


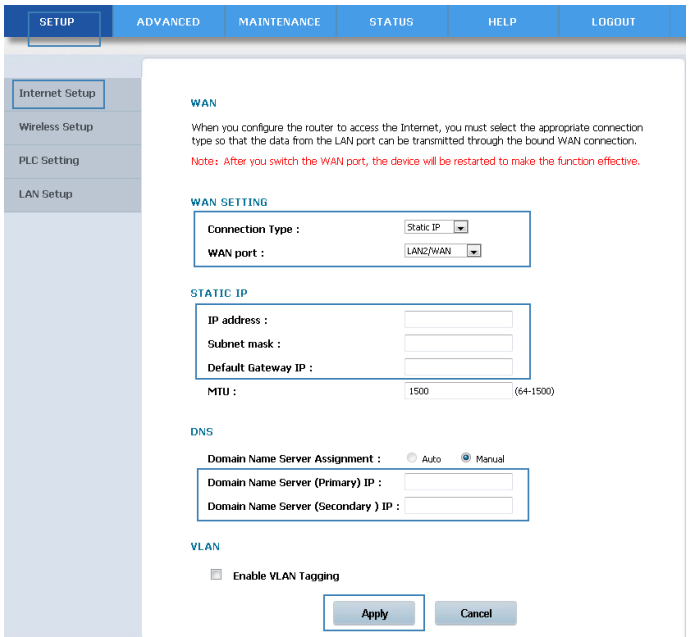
To protect against unauthorized access, change the user name and password after the first login.

3. In the navigation tree, choose **SETUP** > **Internet Setup**.
4. In **Connection Type**, choose the connection type based on the application scenario.

Application Scenario	Connection Type
The user name and password are provided by your service provider.	PPPoE
Certain parameters, such as the static IP address and DNS server address, are provided by your service provider.	Static IP
No parameters are provided by your service provider. The IP address is automatically assigned by the service provider.	Dynamic IP

5. Select **LAN2/WAN** for **WAN port**.
6. Configure the PT530's Internet parameters.
   - If you choose **PPPoE** or **Static IP**, enter the parameters provided by your service provider, and click **Apply**.


SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
LOGOUT
Internet Setup
Wireless Setup
PLC Setting
LAN Setup
WAN
When you configure the router to access the Internet, you must select the appropriate connection type so that the data from the LAN port can be transmitted through the bound WAN connection.
Note: After you switch the WAN port, the device will be restarted to make the function effective.
WAN SETTING
Connection Type :
PPPoE
WAN port :
LAN2/WAN
PPPOE
PPPoE Account :
PPPoE Password :
Authentication Method :
AUTO
MTU :
1492
(128-1492)
VLAN
Enable VLAN Tagging
Apply
Cancel


SETUP
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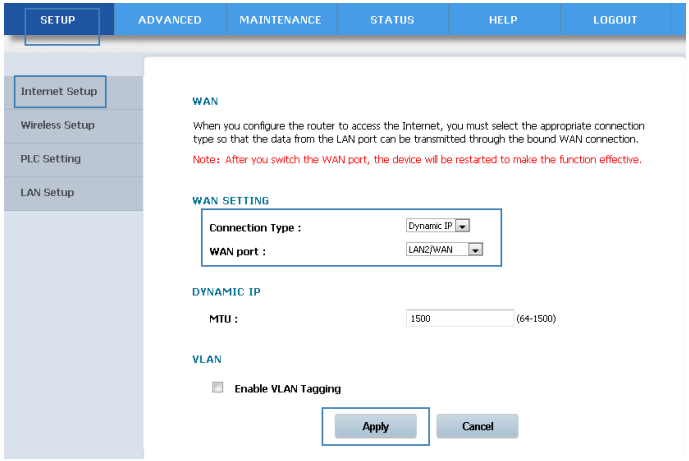
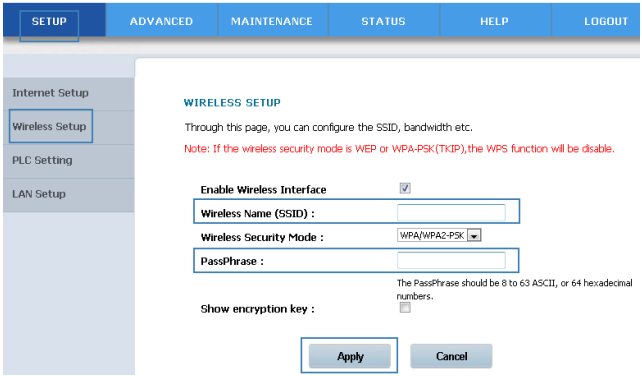
When you configure the router to access the Internet, you must select the appropriate connection type so that the data from the LAN port can be transmitted through the bound WAN connection.
Note: After you switch the WAN port, the device will be restarted to make the function effective.
WAN SETTING
Connection Type :
Static IP
WAN port :
LAN2/WAN
STATIC IP
IP address :
Subnet mask :
Default Gateway IP :
MTU :
1500
(64-1500)
DNS
Domain Name Server Assignment :
Auto
Manual
Domain Name Server (Primary) IP :
Domain Name Server (Secondary) IP :
VLAN
Enable VLAN Tagging
Apply
Cancel

– If you choose **Dynamic IP**, click **Apply** without changing any configurations.



7. In the navigation tree, choose **SETUP** > **Wireless Setup**.
8. Enter the SSID (WLAN name) and key you specified into the **Wireless Name (SSID)** and **PassPhrase**.
9. Click **Apply**.



10. Reset the computer's IP address to **Obtain an IP address automatically**. For details, see chapter **6.1 Setting the Computer IP Address**.

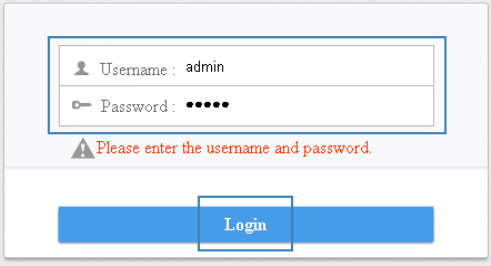
If you build your powerline network by paring multiple PT530s, please modify the LAN IP

address of the PT530 in router mode to **192.168.*.1**("*" is any integer from 1 to 255, except 33). For details, see chapter 5.2 Changing the IP Address Used to Log In to the Web Management Page.

Bridge Mode

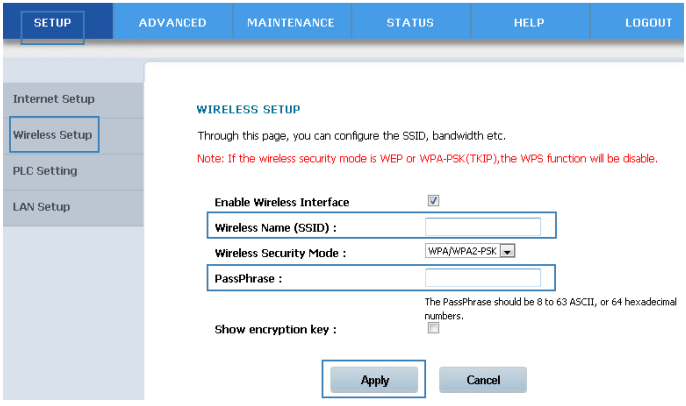
The PT530's default working mode is bridge, and you do not need to configure the Internet connection parameters of the PT530. If you need to setup a wireless connection to the PT530, you can set the wireless connection parameters referring to the following steps.

1. Open a browser on your computer. In the address box, enter **192.168.33.1**. Press **Enter** to access the web management page.
2. On the login page, enter the login user name (**admin** by default) and password (**admin** by default). Click **Login**.



To protect against unauthorized access, change the user name and password after the first login.

3. In the navigation tree, choose **SETUP** > **Wireless Setup**.
4. Enter the SSID (WLAN name) and key you specified into the **Wireless Name (SSID)** and **PassPhrase**.
5. Click **Apply**.



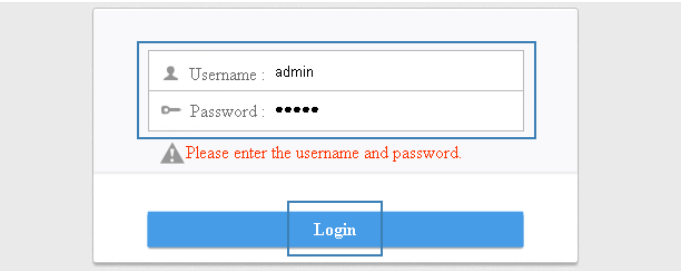
6. Reset the computer's IP address to **Obtain an IP address automatically**. For details, see chapter **6.1 Setting the Computer IP Address**.

4 Advanced Configuration Guide

4.1 Logging In to the Web Management Page

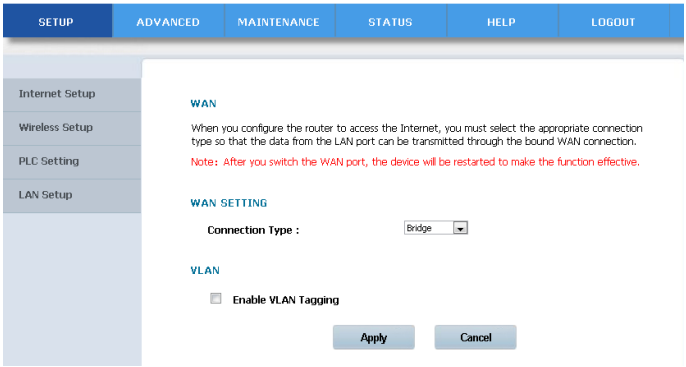
The PT530 provides an intuitive web management page where you can view or set the PT530 parameters.

1. Open a browser. In the address box, enter 192.168.33.1. Press **Enter**.
2. Enter the login user name (**admin** by default) and password (**admin** by default). Click **Login**.



To protect against unauthorized access, change the user name and password after the first login.

After logging in to the PT530's management page, the following page will appear. This section will describe the PT530's features in detail.



4.2 Setting Network Access Parameters

The PT530's default working mode is bridge. You can modify the working mode according to your actual network type and then configure the PT530's Internet connection parameters.

By configuring the PT530's connection type, you can switch the PT530's working mode to the bridge mode or router mode.

- When you set the PT530's connection type to **PPPoE**, **Static IP** or **Dynamic IP**, then the PT530 will work in router mode.
- When you set the PT530's connection type to **Bridge**, then the PT530 will work in bridge mode.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **SETUP** > **Internet Setup**.
3. In **Connection Type**, choose the connection type based on the application scenario.

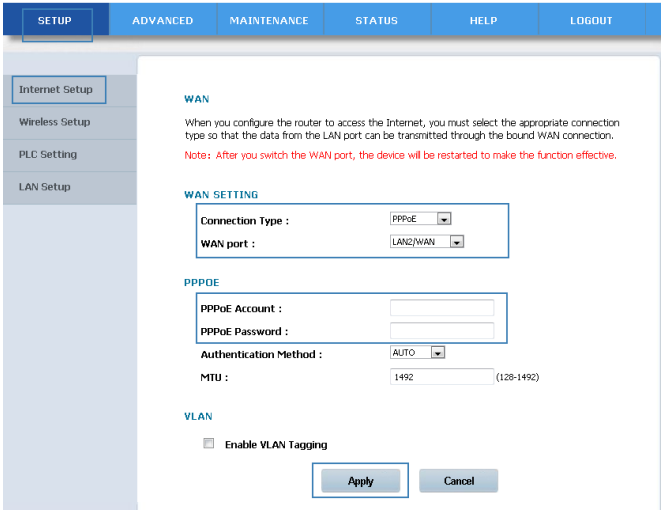
Application Scenario	Connection Type
The user name and password are provided by your service provider.	PPPoE
Certain parameters, such as the static IP address and DNS server address, are provided by your service provider.	Static IP

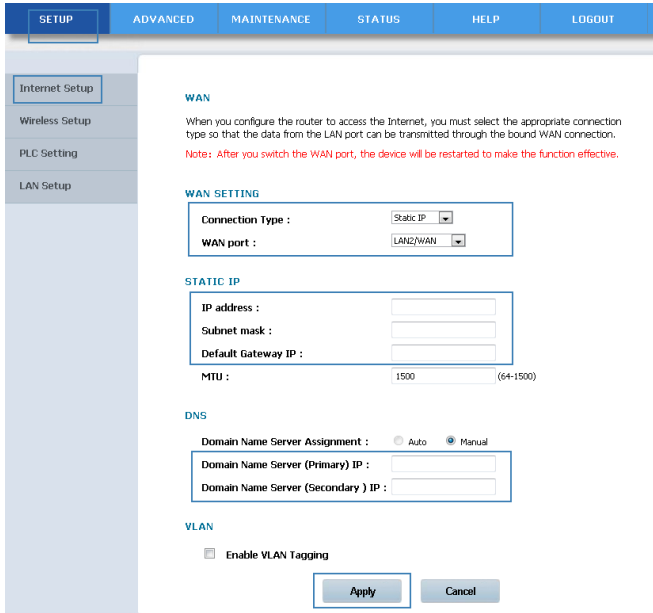
Application Scenario	Connection Type
No parameters are provided by your service provider. The IP address is automatically assigned by the service provider.	Dynamic IP

4. Select the uplink way in **WAN port**.
   - **LAN2/WAN**：LAN uplink. The PT530 will access the Internet through the network cable.
   - **Powerline Port**：Powerline uplink. The PT530 will access the Internet through the network cable.

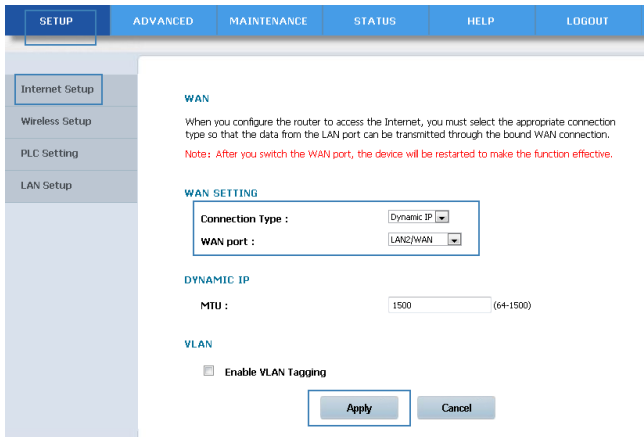
When you set the PT530's connection type to **Bridge**, then the PT530 will work in bridge mode.

5. Configure the PT530's Internet parameters.
   - If you choose **PPPoE** or **Static IP**, enter the parameters provided by your service provider, and click **Apply**.





– If you choose **Dynamic IP,** click **Apply** without changing any configurations.



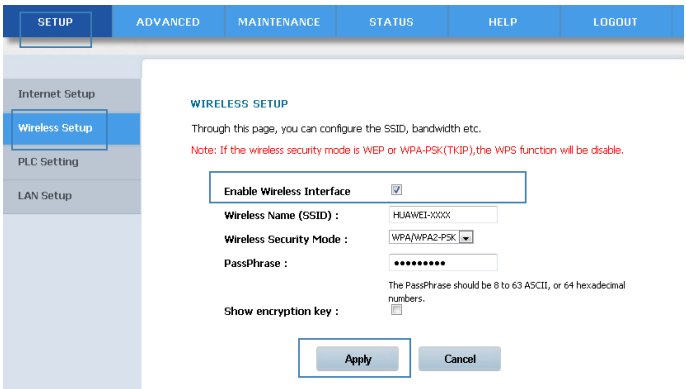
4.3 WLAN Configuration

4.3.1 Enabling and Disabling the WLAN on the PT530

The following two methods are available to enable and disable the WLAN on the PT530.

Using the Web Management Page

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **SETUP** > **Wireless Setup**.
3. Configure **Enable Wireless Interface**:
   - Select **Enable Wireless Interface** to enable the WLAN.
   - Clear **Enable Wireless Interface** to disable the WLAN.
4. Click **Apply**.



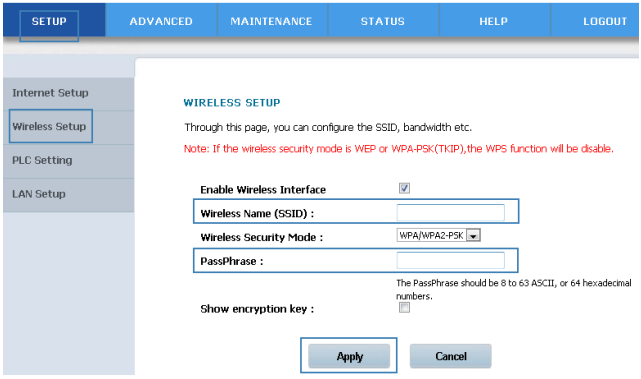
Using the Button

Press and hold the **WPS** button for more than 3 seconds until the **WLAN** indicator turns to steady on to enable the PT530's wireless network function. Or press and hold this button for more than 3 seconds until the **WLAN** indicator turns off to disable the wireless network function.

4.3.2 Changing Your WLAN Name and Password

The PT530's default WLAN name and password are printed on the PT530's cover label. You can use the default WLAN parameters to setup the wireless network connection. For safety or easy to remember, please modify the WLAN parameters regularly.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **SETUP** > **Wireless Setup**.
3. In **Wireless Name (SSID)**, enter a new WLAN name.
4. In **PassPhrase**, enter a new WLAN password。
5. Click **Apply**。



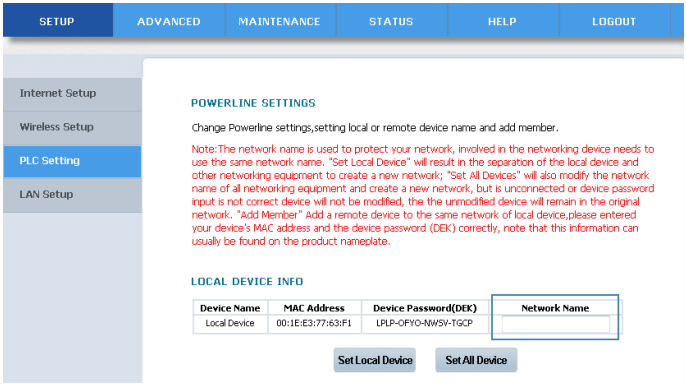
4.4 Powerline Network Configuration

4.4.1 Configuring the PLC Network Name

In the powerline network, you can divide the network through the network name. The powerline adapters can connect to each other if they have the same network name. When there are multiple powerline network adapters in the network, you can modify the network name to divide the network.

1. Logging In to the Web Management Page.

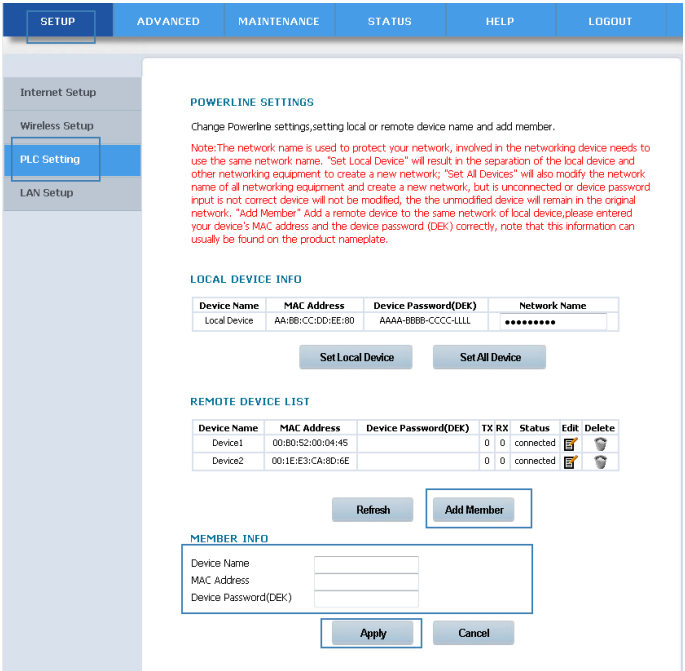
2. In the navigation tree, choose **SETUP** > **PLC Setting**.
3. Enter the network name you specified into the **Network Name**.
4. Click **Set Local Device** or **Set All Device**.
   - **Set Local Device**: Only modify the network name of the currently configured PT530. Once configured, the current PT530 will separate from other powerline network adapters and create a new network.
   - **Set All Device**: Modify the network name of all the powerline devices connecting to the currently configured PT530, and create a new network.


SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
LOGOUT
Internet Setup
Wireless Setup
PLC Setting
LAN Setup
POWERLINE SETTINGS
Change Powerline settings,setting local or remote device name and add member.
Note:The network name is used to protect your network, involved in the networking device needs to use the same network name. "Set Local Device" will result in the separation of the local device and other networking equipment to create a new network; "Set All Devices" will also modify the network name of all networking equipment and create a new network, but is unconnected or device password input is not correct device will not be modified, the the unmodified device will remain in the original network. "Add Member" Add a remote device to the same network of local device,please entered your device's MAC address and the device password (DEK) correctly, note that this information can usually be found on the product nameplate.
LOCAL DEVICE INFO
Device Name
MAC Address
Device Password(DEK)
Network Name
Local Device
00:1E:E3:77:63:F1
LPLP-OFYO-NWSV-TGCP
Set Local Device
Set All Device

4.4.2 Adding Powerline Devices to the local PLC network

You can manually add other powerline adapters to the local network through the web management page. Before adding the device, please record the device's MAC address and the device password (DEK).

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **SETUP** > **PLC Setting**.
3. Click **Add Member**.
4. Enter the MAC address and device password of the newly added device in **MAC Address** and **Device Password (DEK)**. In **Device Name**, enter the device name you specified.
5. Click **Apply**.

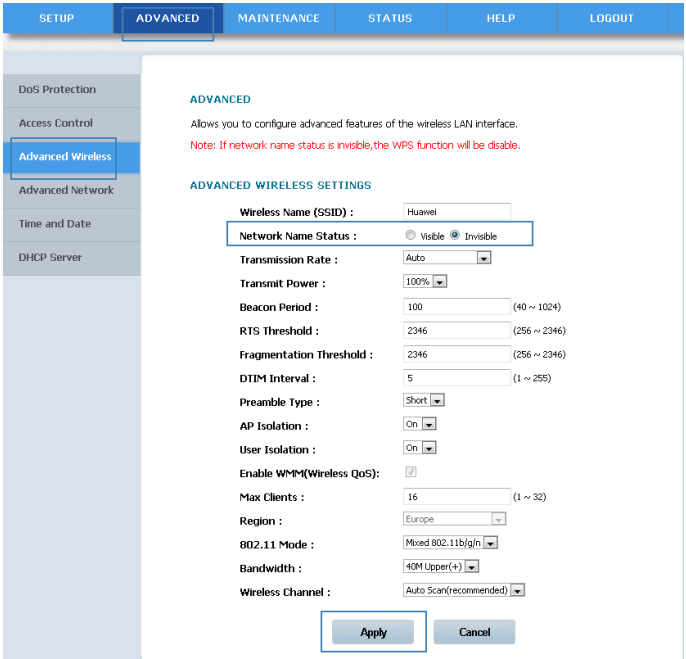

SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
LOGOUT
Internet Setup
Wireless Setup
PLC Setting
LAN Setup
POWERLINE SETTINGS
Change Powerline settings,setting local or remote device name and add member.
Note:The network name is used to protect your network, involved in the networking device needs to use the same network name. "Set Local Device" will result in the separation of the local device and other networking equipment to create a new network; "Set All Devices" will also modify the network name of all networking equipment and create a new network, but is unconnected or device password input is not correct device will not be modified, the the unmodified device will remain in the original network. "Add Member" Add a remote device to the same network of local device,please entered your device's MAC address and the device password (DEK) correctly, note that this information can usually be found on the product nameplate.
LOCAL DEVICE INFO
Device Name
MAC Address
Device Password(DEK)
Network Name
Local Device
AA:BB:CC:DD:EE:80
AAAA-BBBB-CCCC-LLLL
Set Local Device
Set All Device
REMOTE DEVICE LIST
Device Name
MAC Address
Device Password(DEK)
TX RX
Status
Edit
Delete
Device1
00:B0:52:00:04:45
0 0
connected
Device2
00:1E:E3:CA:8D:6E
0 0
connected
Refresh
Add Member
MEMBER INFO
Device Name
MAC Address
Device Password(DEK)
Apply
Cancel

4.5 Network Security

4.5.1 Hiding the WLAN Name

After you hide the WLAN name, anyone who wishes to connect to the WLAN must enter the correct WLAN name. This measure helps improve WLAN security.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **ADVANCED** > **Advanced Wireless** > **Advanced**.
3. Select **Invisible** for **Network Name Status**.
4. Click **Apply**.

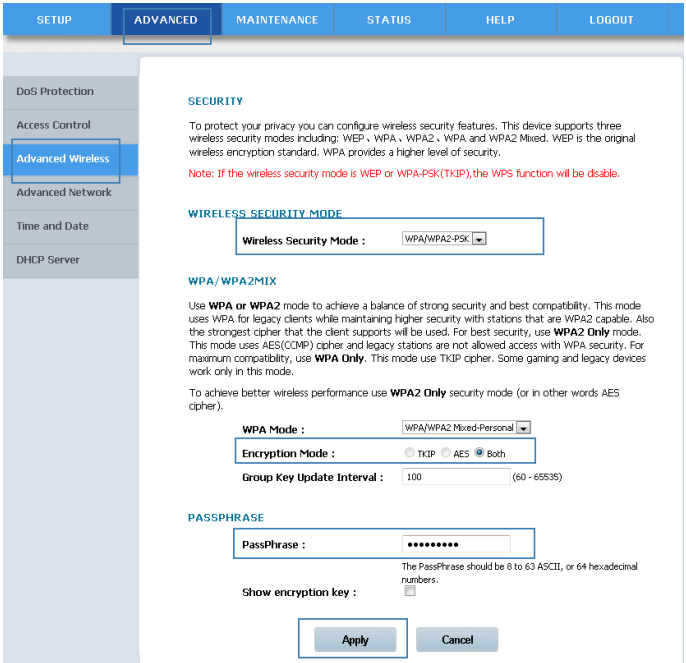


4.5.2 Using High Security Encryption Modes

Adopting high security encryption modes protects against unauthorized access as well as data interception on networks.

To improve WLAN security without sacrificing working efficiency, use **WPA-PSK/WPA2–PSK** and **AES**. This step also prevents WLAN unavailability caused by network adapters' incompatibility with the selected security mode.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **ADVANCED** > **Advanced Wireless** > **Security**.
3. Select **WPA/WPA2-PSK** for **Wireless Security Mode**.
4. In **PassPhrase**, enter the WLAN password you specified.
5. Click **Apply**.


SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
LOGOUT
DoS Protection
Access Control
Advanced Wireless
Advanced Network
Time and Date
DHCP Server
SECURITY
To protect your privacy you can configure wireless security features. This device supports three wireless security modes including: WEP、WPA、WPA2、WPA and WPA2 Mixed. WEP is the original wireless encryption standard. WPA provides a higher level of security.
Note: If the wireless security mode is WEP or WPA-PSK(TKIP),the WPS function will be disable.
WIRELESS SECURITY MODE
Wireless Security Mode :
WPA/WPA2-PSK
WPA/WPA2MIX
Use WPA or WPA2 mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use WPA2 Only mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use WPA Only. This mode use TKIP cipher. Some gaming and legacy devices work only in this mode.
To achieve better wireless performance use WPA2 Only security mode (or in other words AES cipher).
WPA Mode :
WPA/WPA2 Mixed-Personal
Encryption Mode :
TKIP
AES
Both
Group Key Update Interval :
100
(60 - 65535)
PASSPHRASE
PassPhrase :
The PassPhrase should be 8 to 63 ASCII, or 64 hexadecimal numbers.
Show encryption key :
Apply
Cancel

4.5.3 Allowing Only Specified Computers to Access Your WLAN

To prevent unauthorized access to your WLAN, you can specify which devices are allowed to access your WLAN.

1. View and record the MAC address of the laptop.

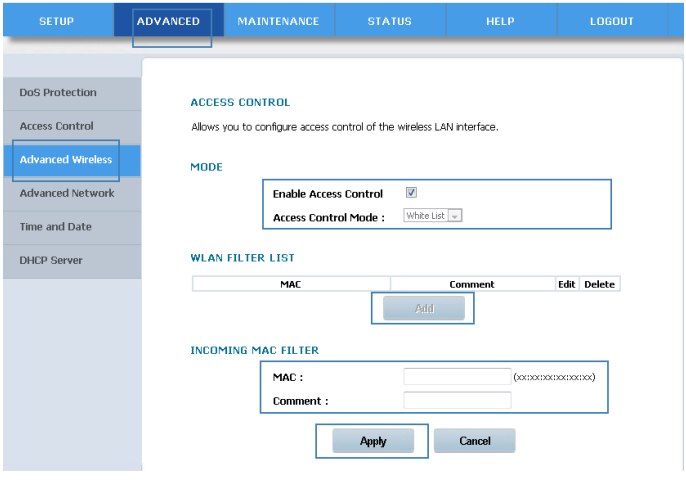
For details, see chapter **6.4 Checking the Computer MAC Address**.

2. Logging In to the Web Management Page.
3. In the navigation tree, choose **ADVANCED** > **Advanced Wireless** > **Access Control**.
4. Select **Enable Access Control**.
5. Select **White List** for **Access Control Mode**.
6. Click **Add**.

7. In **MAC** enter the MAC address of the laptop.

The format of the MAC address entered in **MAC** is different from that of the MAC address displayed in the command line window of a Windows operating system.
The colons (:) replace the hyphens (-).

8. Click **Apply**.



4.5.4 Controlling Computer Internet Access

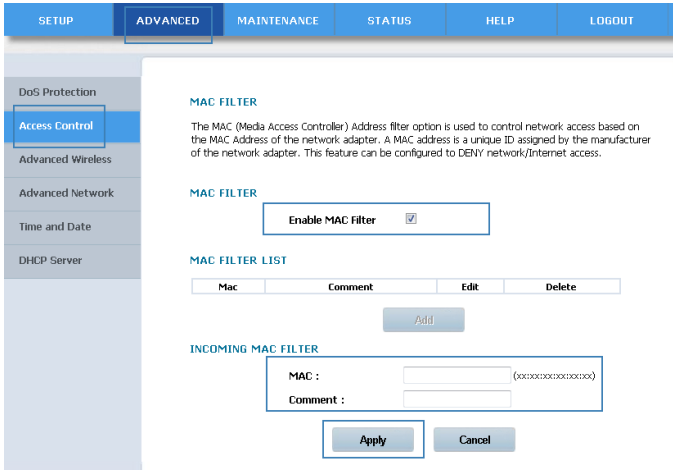
Your PT530 provides MAC address filtering. With this function, you can confine Internet access to specific computers.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **ADVANCED** > **Access Control** > **MAC Filter**.
3. Click **Enable MAC Filter**.
4. Under **MAC FILTER LIST**, click **Add**.
5. In **MAC** enter the MAC address of the computer you want to control.

For details, see chapter **6.4 Checking the Computer MAC Address**.

6. In **Comment**, enter the comment you specified.

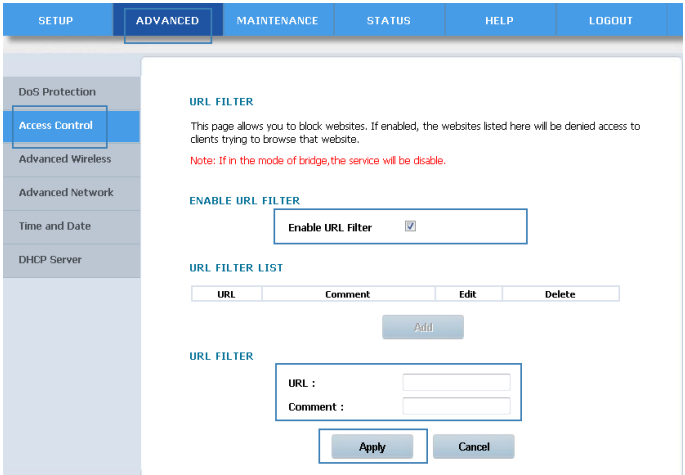
7. Click **Apply**.



4.5.5 Filtering Out Inappropriate Websites

Use URL filtering to prevent certain websites from being accessed.

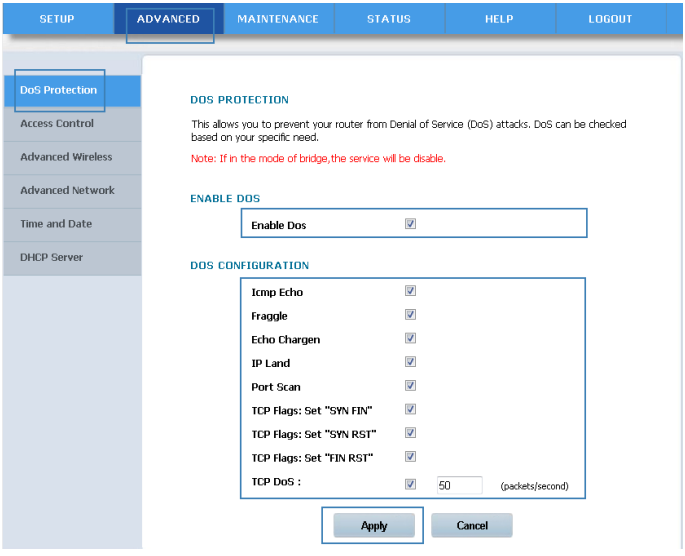
1. Logging In to the Web Management Page.
2. In the navigation tree, choose **ADVANCED** > **Access Control** > **URL Filter**.
3. Select **Enable URL Filter**.
4. Click **Add**.
5. In **ULR**, enter the Web site address you specify.
6. In **Comment**, enter the comment you specified.
7. Click **Apply**.



4.5.6 Preventing Network Attacks

The Internet is an open network that keeps computers around the world connected. Unfortunately, this means these computers are vulnerable to hacking attacks. The PT530 was designed with this threat in mind, and provides strong protection measures against attacks, creating a safe network environment.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **ADVANCED** > **DoS Protection**.
3. Select **Enable DoS**.
4. Under the **DoS CONFIGURATION**, select the protection options according to the actual need.
5. Click **Apply**.

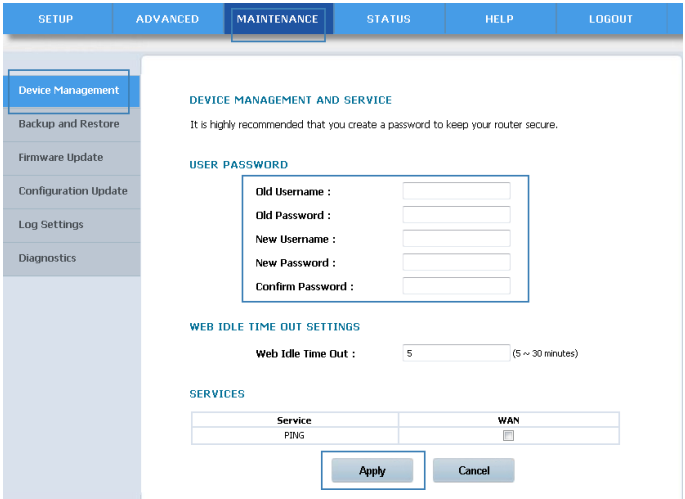

SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
LOGOUT
DoS Protection
Access Control
Advanced Wireless
Advanced Network
Time and Date
DHCP Server
DOS PROTECTION
This allows you to prevent your router from Denial of Service (DoS) attacks. DoS can be checked based on your specific need.
Note: If in the mode of bridge,the service will be disable.
ENABLE DOS
Enable Dos
DOS CONFIGURATION
Icmp Echo
Fraggle
Echo Chargen
IP Land
Port Scan
TCP Flags: Set "SYN FIN"
TCP Flags: Set "SYN RST"
TCP Flags: Set "FIN RST"
TCP DoS :
50
(packets/second)
Apply
Cancel

5 Maintenance Guide

5.1 Changing the Web Management Page User Name and Password

The correct user name and password are required to log in to the web management page. Regular changes to the web management page user name and password can effectively prevent unauthorized users from logging in and modifying important parameters.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **MAINTENANCE** > **Device Management**.
3. In **Old Username**, enter the currently used user name.
4. In **Old Password**, enter the currently used password.
5. In **New Username**, enter a new user name.
6. In **New Password**, enter a new password. In **Confirm Password** enter the new password again.
7. Click **Apply**.



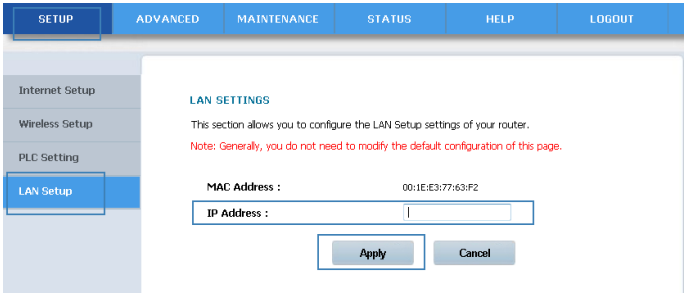
After the user name and password are changed, the login page is displayed. Enter your new user name and password to log in.

If you forget the password, you can restore the default settings by pressing and holding the Reset button on the panel of thePT530 for over 2 seconds. The user name and password used for logging in to the web management page are then restored to their default values. After the PT530 is restored to its default settings, all user customized data will be lost. Perform this operation with caution.

5.2 Changing the IP Address Used to Log In to the Web Management Page

The PT530's default IP address is 192.168.33.1. When the PT530's IP address conflicts with another device in the network, you need to modify the PT530's IP address.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **SETUP** > **LAN Setup**.
3. In **IP Address**, enter a new IP address.
4. Click **Apply**.



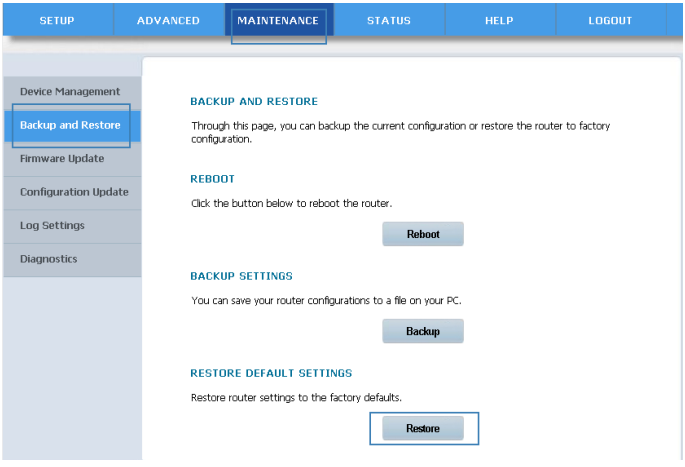
After changing the PT530's IP address, you need to reconnect your PC for new IP address.

5.3 Restoring Default Settings

5.3.1 Using the Configuration Tool

If the PT530 parameter settings were configured incorrectly, log in to the web management page to reload the default configuration file and restore the PT530 to its default settings. Perform this operation with caution. After the PT530 is restored to its default settings, all custom data and settings will be lost, and the password will be restored to **admin**.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **MAINTENANCE** > **Backup and Restore**.
3. Click **Restore**.



4. In the dialog box, click **OK**.

5.3.2 Using the Reset Button

If you forget the login password to the web management page or could not access the web management page, use the reset button on the PT530 rear panel to restore the PT530 to its default settings. Perform this operation with caution. After the PT530 is restored to its default settings, all custom data and settings will be lost, and the password will be restored to **admin**.

1. Press the PT530 power button to power the PT530 on.

2. Use a needle to press and hold the **Reset** button for more than 2 seconds until all the indicators turn off.

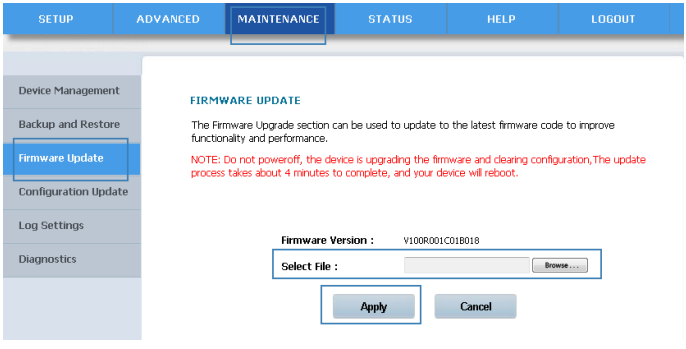
The PT530 will restart, which will cause temporary network interruptions.

After the PT530 is restored to its default settings, change the computer IP address so that it is in the same network segment as the 192.168.33.1 default IP address.

5.4 Upgrading Firmware

The PT530 supports upgrade firmware through the web management page. Before upgrading the firmware, please download the latest firmware of the PT530 at the Huawei's official website www.

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **MAINTENANCE** > **Firmware Update**.
3. Click **Browse** , and select the latest firmware you download at the Huawei's official website.
4. Click **Apply**.

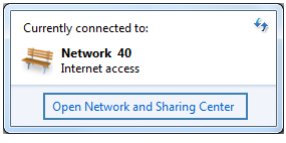


6 Reference Operations

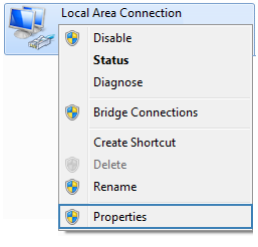
6.1 Setting the Computer IP Address

Procedure on Computers Running Windows 7

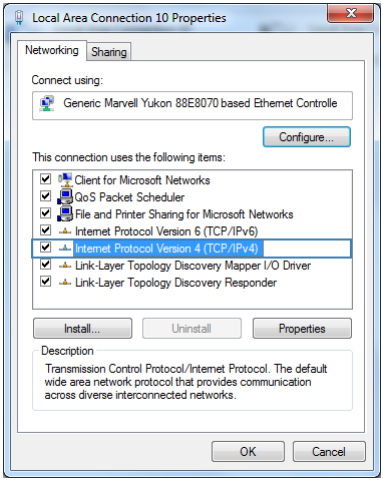
1. Click in the lower right corner of your desktop, and choose **Open Network and Sharing Center**.



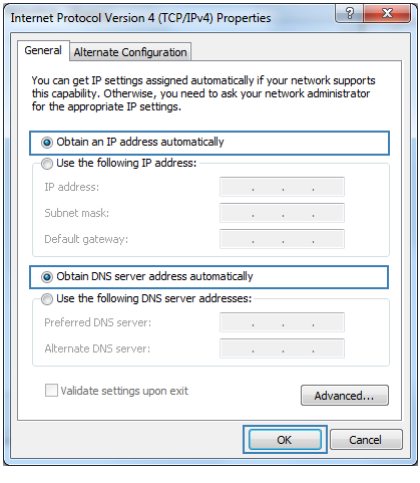
2. Choose **Change adapter settings**. Right-click **Local Area Connection** and choose **Properties**.



3. Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



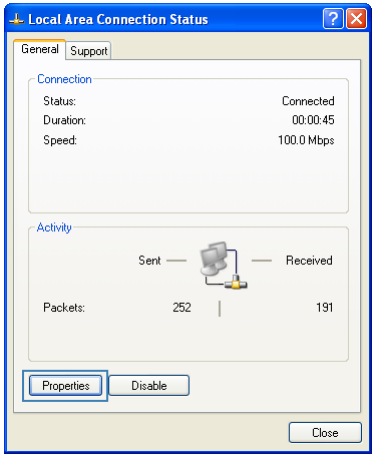
4. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**. Click **OK**.


Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Validate settings upon exit
Advanced...
OK
Cancel

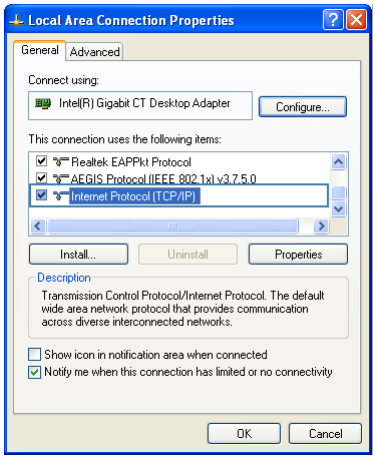
On Windows XP

1. Click in the lower right corner of your desktop.

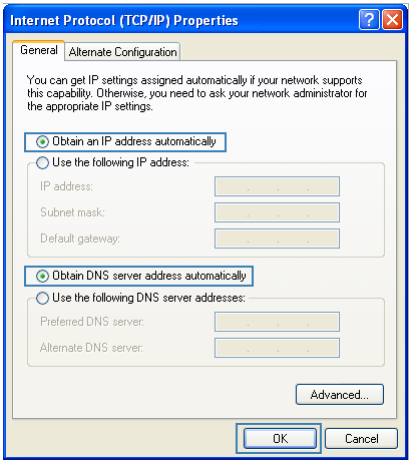
2. In the displayed dialog box, click **Properties**.



3. Double-click **Internet Protocol (TCP/IP)**.



4. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**. Click **OK**.


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

6.2 Wireless Connection Setup

6.2.1 Manually Setting Up a Wireless Connection

The wireless configuration software provided by Windows is used as an example to describe how to set up a wireless connection.

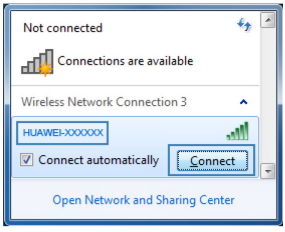
You can also use the tool built into the network adapter to set up a wireless connection. For details, see the network adapter's user guide.

Before setting up a wireless connection, record the WLAN name and password of the PT530. The default WLAN name and password are printed on the PT530 cover label.

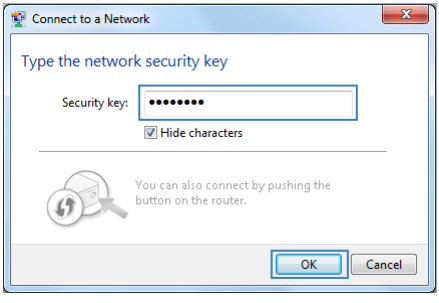
On Windows 7

1. Click in the lower right corner of your desktop.

2. From the wireless network list, select the WLAN provided by the PT530. Click **Connect**.



3. In the displayed dialog box, enter the WLAN password and click **OK**.



4. In the wireless network list, check the WLAN connection status. If the status is **Connected**, the computer is wirelessly connected to the PT530.

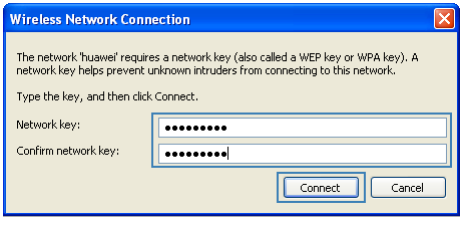
On Windows XP

1. Click in the lower right corner of your desktop.

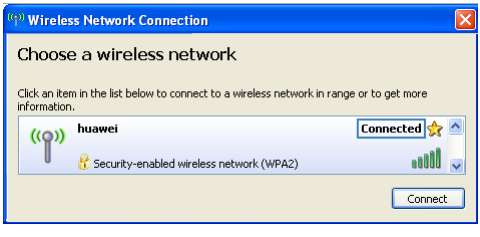
2. From the wireless network list, select the WLAN provided by the PT530. Click **Connect**.

Wireless Network Connection
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information.
huawei
Security-enabled wireless network (WPA2)
To connect to this network, click Connect. You might need to enter additional information.
Connect

3. In the displayed dialog box, enter the WLAN password and click **Connect**.


Wireless Network Connection
The network 'huawei' requires a network key (also called a WEP key or WPA key). A network key helps prevent unknown intruders from connecting to this network.
Type the key, and then click Connect.
Network key:
Confirm network key:
Connect
Cancel

4. In the wireless network list, check the WLAN connection status. If the status is **Connected**, the computer is wirelessly connected to the PT530.


Wireless Network Connection
Choose a wireless network
Click an item in the list below to connect to a wireless network in range or to get more information.
huawei
Connected
Security-enabled wireless network (WPA2)
Connect

6.2.2 Setting Up a Wireless Connection Using the WPS Button

Push the WPS button once to quickly set up a wireless connection between the PT530 and any WPS-capable device.

Before you set up a wireless connection using the WPS button, verify the following:

- The wireless network security mode of the PT530 is WPA2-PSK or WPA-PSK/WPA2–PSK.

- The wireless device (laptop, tablet, or mobile phone) to connect to the PT530 is WPS-capable.

1. Press and hold PT530's **WPS** button for about 1 second (from 0.5 second to 3 seconds), and release it. The **WLAN** indicator will start to blink.
2. Within 2 minutes, press the **WPS** button on the wireless terminal such as a Laptop computer.

When the **WLAN** indicator on the PT530 turns to steady on from blinking status, it indicates that wireless connection between wireless terminal and the PT530 has been established successfully.

6.3 Enabling Wireless Configuration on Windows

Procedure on Computers Running Windows 7

1. Right-click **My Computer** and choose **Manage** from the shortcut menu.
2. In the left pane of the **Computer Management** window, choose **Computer Management (Local)** > **Services and Applications** > **Services**.
3. In the right pane of the **Computer Management** window, right-click **Wireless Zero Configuration** and choose **Properties** from the shortcut menu.
4. In the displayed dialog box, check that **Service status** is **Started**.
5. Click **OK** to close the dialog box. Then close the **Computer Management** window.

Procedure on Computers Running Vista

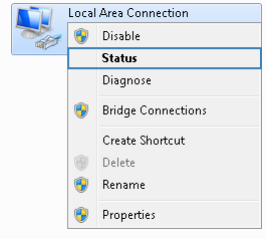
1. Right-click **Computer** and choose **Manage** from the shortcut menu.
2. In the left pane of the **Computer Management** window, choose **Computer Management (Local)** > **Services and Applications** > **Services**.
3. In the right pane of the **Computer Management** window, right-click **WLAN AutoConfig** and choose **Properties** from the shortcut menu.
4. In the displayed dialog box, check that **Service status** is **Started**.
5. Click **OK** to close the dialog box. Then close the **Computer Management** window.

6.4 Checking the Computer MAC Address

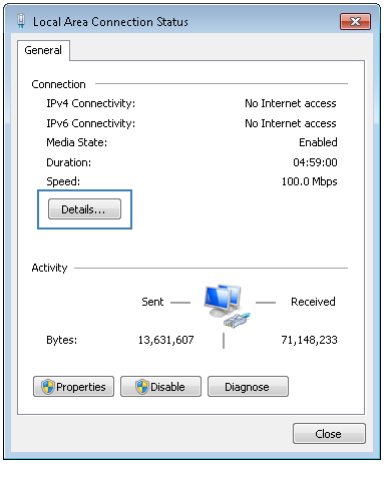
The MAC address, also known as the physical address, is a unique identifier assigned to a network adapter. A MAC address contains six groups of two hexadecimal digits, such as 2C-41–38–8D-75–8D. This section demonstrates how to check your computer's MAC address.

Procedure on Computers Running Windows 7

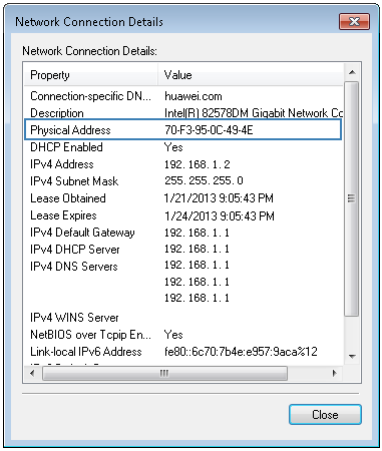
1. Choose **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center** > **Change adapter settings**. Right-click **Local Area Connection** and choose **Status** from the shortcut menu.



2. Click **Details**.

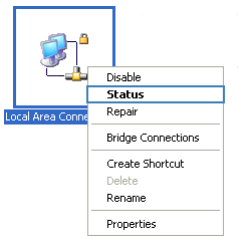


3. In **Network Connection Details**, find the line similar to **Physical Address 70-F3–95–0C-49–4E**. The **70-F3–95–0C-49–4E** string is your computer's MAC address.

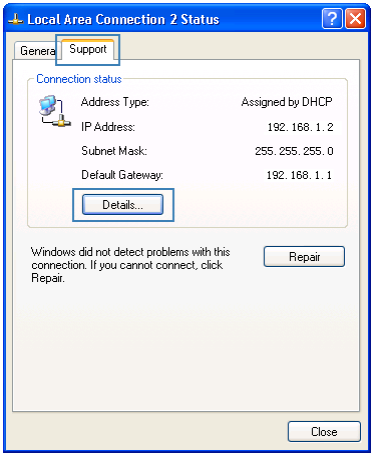


Procedure on Computers Running XP

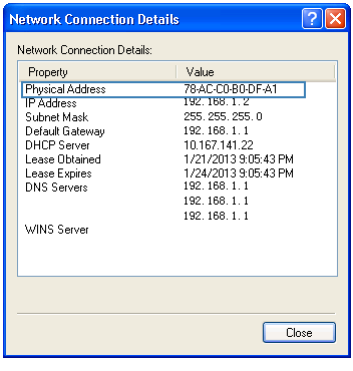
1. Choose **Start** > **Control Panel** > **Network and Internet Connections** > **Network Connections**. Right-click **Local Area Connection** and choose **Status** from the shortcut menu.



2. Click the **Support** tab. Under **Connection status**, click **Details**.



3. In **Network Connection Details**, find the line similar to **Physical Address 78–AC–C0–B0–DF-A1**. The **78–AC–C0–B0–DF-A1** string is your computer's MAC address.



7 FAQs

7.1 What Can I Do If the PWR Indicator Is Off?

1. Check that the PT530 is correctly connected to the power socket.
2. Check whether the power socket is faulty. If yes, replace it or find another.
3. If the PWR indicator is still off but other indicators are normal, consult your local Internet service provider (ISP) for help.

7.2 What Can I Do If the LAN Indicator Is Off?

1. Check whether the PT530 is connected to the network port.
2. Check whether the network adapter and driver are running properly and the configured parameters are correct.
3. Check whether the computer can assess the Internet after you connect it to the LAN port of the router.
4. Connect the PT530 to another LAN port of the router.
5. If the **LAN** indicator is still off, contact an authorized maintenance center.

7.3 What Can I Do If the PLC Indicator Is Off?

1. Plug the two PT530s into a nearby power outlet and check whether the **PLC** indicator lights up or not.
2. Follow the method in **3.1 Pairing Powerline Devices** to establish the connection again.
3. If the **PLC** indicator is still off, contact an authorized maintenance center.

7.4 What Can I Do If I Cannot Open the Web Management Page?

1. Check that the cables are securely connected to the PT530 and that the LAN port's indicator is on.
2. Check that the computer's IP address is in the same network segment as the PT530.
3. Check that the router's IP address and the PT530's IP address are in different network segments. If there is a IP address conflict, please disconnect the connection between the PT530 and the router, and refer to the router's user manual, modify the router's IP address to **192.168.*.1**("*" is any integer from 1 to 255, except 33).
4. Open Internet Explorer. Choose **Tools** > **Internet Options** > **Connections** > **LAN settings**, and ensure that all check boxes are deselected.

If the problem persists, restore the PT530 to its default settings.

7.5 What Can I Do If I Cannot Access the Internet when I pair one PT530 in router mode with another PT530 in bridge mode?

Please modify the IP address of the PT530 in router mode following the steps below:

1. Logging In to the Web Management Page.
2. In the navigation tree, choose **SETUP > LAN Setup**.
3. In IP Address, modify the PT530's IP address to 192.168.*.1 ("*" is any integer from 1 to 255, except 33).
4. Click **Apply**.

After changing the PT530's IP address, you need to reconnect your PC for new IP address.

7.6 Can I Connect Multiple PT530 Adapters

A home network supports a maximum of eight PT530 adapters. To connect multiple adapters to a home network, repeat the operation of connecting two PT530 adapters.

8 Default Settings

Parameter	Default Value
LAN port IP address	192.168.33.1
LAN port subnet mask	255.255.255.0
User name to log in to the web configuration page	admin
Password to log in to the web configuration page	admin
WLAN name	Labeled on the product cover
WLAN password	Labeled on the product cover

9 For More Help

Please visit www.huaweidevice.com/worldwide/support/hotline for recently updated hotline and email address in your country or region.

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